Central Filter Systems

XFC-S Series

Effective: 10/05

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Part #: 882.00091.00

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These operating instructions are for*:

(* please fill in personally)

Serial number:	
Year of manufacture:	
Date of Delivery:	
Number of delivery:	
Date of commissioning:	
Location:	
Group of machines:	

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Shipping Information

Unpacking and Inspection

You should inspect your equipment for possible shipping damage. Thoroughly check the equipment for any damage that might have occurred in transit, such as broken or loose wiring and components, loose hardware and mounting screws, etc.

In the Event of Shipping Damage

According to the contract terms and conditions of the Carrier, the responsibility of the Shipper ends at the time and place of shipment.

Notify the transportation company's local agent if you discover damage

Hold the damaged goods and packing material for the examining agent's inspection. **Do not return any goods before the transportation company's inspection and authorization.**

File a claim with the transportation company. Substantiate the claim by referring to the agent's report. A certified copy of our invoice is available upon request. The original Bill of Lading is attached to our original invoice. If the shipment was prepaid, write us for a receipted transportation bill.

Advise customer service regarding your wish for assistance and to obtain an RMA (return material authorization) number.

If the Shipment is Not Complete

Check the packing list as back-ordered items are noted on the packing list. In addition to the equipment itself, you should have:

- Bill of lading
- Packing list
- Operating and Installation packet
- Electrical schematic and panel layout drawings
- Component instruction manuals (if applicable)

Re-inspect the container and packing material to see if you missed any smaller items during unpacking.

If the Shipment is Not Correct

If the shipment is not what you ordered, **contact the shipping department immediately**. For shipments in the United States and Canada, call 1 (800) 233-4819; for all other countries, call our international desk at (630) 475-7491. Have the order number and item number available. *Hold the items until you receive shipping instructions*.

Returns

Do not return any damaged or incorrect items until you receive shipping instructions from the shipping department.

Warranty

We warrant all of our equipment to be free from defects in workmanship and material when used under recommended conditions. The manufacturer's obligation is limited to repair or replace FOB the factory any parts that are returned prepaid within one year of equipment shipment to the original purchaser, and which, in the manufacturer's opinion, are defective. Any replacement part assumes the unused portion of this warranty.

This warranty does not apply to any equipment which, in the manufacturer's opinion, has been subjected to misuse, negligence, or operation in excess of recommended limits or which has been repaired or altered without the manufacturer's express authorization. If the serial number has been defaced or removed from the component, the warranty on that component is void. Defective parts become the property of the warrantor and are to be returned.

The manufacturer is not liable for any incidental, consequential, or special damages or expenses. The manufacturer's obligation for parts not furnished as components of its manufactured equipment is limited to the warranty of the manufacturers of said parts.

Any sales, use, excise, or other tax incident to the replacement of parts under this warranty is the responsibility of the purchaser.

The manufacturer neither assumes nor authorizes any other persons to assume for it any liability in connection with the sale of its equipment not expressed in this warranty.

Many types of the manufacturer's equipment carry an additional one-year service policy. Consult your sales representative for specific details.

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1. General Instructions

These instructions apply to all persons who may operate the equipment.

These operating instructions are to be read and used by all persons assigned to use the equipment. Ensure that all operating personnel are familiar with the operating instructions.

1.1. Warnings and Symbols

The following warnings and symbols are used in these operating instructions:

This symbol indicates danger to life. Fatal or serious injury is possible if the corresponding instructions, regulations or warnings are not observed.

This symbol indicates that serious injury is possible if the corresponding instructions, regulations or warnings are not observed.

This symbol indicates that extensive damage to equipment is possible if the corresponding instructions, regulations or warnings are not observed.

This symbol indicates information important for becoming familiar with the equipment, i.e. technical correlations.

This symbol indicates that a technical term is explained at this point.

1.2. Explanations and Information

Various terms are used in these operating instructions to ensure clarity. Therefore, please note that the terms used in the text stand for the corresponding explanations listed below.

- Equipment: ”Equipment” can mean an individual unit, a machine or an installation.
- Operating personnel: The ”operating personnel” are persons operating the equipment on their own responsibility or according to instructions.
- Operator: The ”operator” of the equipment (production manager, foreman, etc.) is the person responsible for all production sequences. The operator instructs the operating personnel of what is to be done.
- Operating instructions: The ”operating instructions” describe the interaction of the equipment, production sequences or methods. The operating instructions must be compiled by the operator of the equipment.
- Equipment foreman: When several operating personnel work on one machine, the ”equipment foreman” coordinates the sequences. The equipment foreman must be appointed by the operator.
- Trained personnel: ”Trained personnel” are persons who, due to their training, are authorized to carry out the required work.

2. Safety Instructions

These safety instructions apply to all persons who may use the equipment, and should be used by all persons assigned activities connected with the equipment.

Please inform all persons within the range of action of the equipment of the direct and indirect hazards connected with the equipment.

Knowledge of the English language is prerequisite.

Ensure that all operating personnel are familiar with the operating instructions and the function of the equipment.

2.1. For Your Safety

2.1.1. General

To prevent injury and/or damage to equipment, observe the following safety rules:

- Read these operating instructions carefully before operating for the first time. Contact us should questions arise.
- These operating instructions must be kept available at all times at the place of operation of the equipment.
- Please note that, for reasons of clarity, not all conceivable cases regarding operation or maintenance of the equipment can be covered in these operating instructions.
- Observe all safety instructions and warnings on the equipment.
- All work on the equipment is to be carried out by persons whose qualifications are specified in the pertaining chapters of the operating instructions.
- Wear proper working clothes while performing any work on the equipment.
- Observe all local regulations and requirements pertaining to this equipment
- Disconnect electrical components from the main power supply before work is carried out on these components
- Compile detailed operating instructions based on these operating instructions for the sequence of procedures to be carried out on this equipment.
- Please note that sound levels exceeding 85 db(A) may in the long term damage your health. Use appropriate ear protection to prevent hearing impairment.

2.1.2. Assembly

To prevent injury and/or damage to equipment, observe the following safety rules:

- Compare the connected loads with those of the main supply.
- Use care when using lifting gear, and observe any pertaining regulations.
- Do not modify, add other equipment or change the design of the equipment without the approval of the manufacturer.
- Attachments not supplied by the manufacturer must be manufactured in accordance with safety regulation EN 294.
- Make sure all the accessories and components are properly connected in accordance with any relevant regulations.
- To prevent electrical shock, operate the device only if all its components are grounded.
- Do not allow solid particles and dust to enter to the vacuum pump.

2.1.3. Operation

To prevent injury and/or damage to equipment, observe the following safety rules:

- Appoint an equipment foreman to be responsible for the equipment.
- Ensure that the operating personnel are provided detailed instruction in the operation of the equipment.
- When the main switch is switched off for reasons pertaining to safety, it must be secured and locked out to prevent injury.
- Repair work may be carried out by trained personnel only.
- Never operate the equipment when it is partially dismantled.
- In case of malfunction, shut down the equipment immediately. Repair the equipment immediately.
- The equipment is intended only for conveying granulated plastics and regrinds. Any other or additional use is contrary to specifications.
- This equipment is not suitable for food processing.
- The safety instructions of the connected machines must be followed.

2.1.4. Maintenance

To prevent injury and/or damage to equipment, observe the following safety rules:

- Before starting maintenance work, appoint a supervisor.
- Inform the responsible personnel before maintenance work on the system is started.
- Disconnect the equipment from main supply and ensure that it is locked out before starting maintenance procedures to ensure that it cannot be switched on unintentionally.
- All pipes, hoses and threaded connections should be checked regularly for leaks and damage. Any faults that arise should be corrected immediately.
- Depressurize all compressed air piping before starting maintenance work.

2.2. For the Operating Safety of the Equipment

- Never change settings if the consequences are not precisely known.
- Use only original manufacturer-approved spare parts.
- Please observe the maintenance schedule.
- Keep a record of all maintenance and repair work.
- Please note that electronic components may be damaged by static discharge.
- Check all electrical connections for proper fit before the equipment is operated for the first time and at regular intervals.
- Please note that the ambient temperature must not exceed 158ºF (70ºC).
- The central filter requires a compressed-air supply, max. 60-80 PSI (4.1-5.5 bar).
- Never use a higher operating pressure than 80 PSI (5.5 Bar).
- Install the central filter in the process suction line right in front of the vacuum pump.
- Make sure the filter-cleaning procedure is carried out while the vacuum pump is running.
- Follow the operating instructions of the conveying system.
- Check the dust container for tightness following each cleaning procedure.
- Follow the operating instructions of each connected machine.
- All components must be sufficiently grounded.

3. Transport, Assembly and Storage

This chapter is intended for all operating personnel of the equipment.

Personnel using these instructions must be made aware of the regul5ations for the prevention of accidents, the operating conditions and safety regulations and their implementation.

Ensure in each case that the operating personnel are sufficiently informed.

Please inform all persons who may use the equipment of the direct and indirect hazards associated with the equipment.

Please observe all safety regulations for the operation of lifting equipment.

3.1. Transport and Packing

Please ensure adequate carrying capacity of the lifting equipment.

The unit is delivered as a complete sub-assembly. Transport the unit on a pallet. Lift the unit only by the mounting flanges on the side of the filter or by the filter chamber. Never lift the filter by the solenoid or inlet tubes.

The equipment passes rigorous testing in the factory and is packed carefully to avoid transport damage.

Please check packing on delivery for transport damage. Packing materials should be disposed of according to environmental laws or reused.

Only use for transport of the equipment a suitable lifting device (e.g. a fork lift truck or a workshop crane).

Transport must be shock-proofed and free from vibrations.

3.2. Assembly

Please ensure adequate carrying capacity of the lifting equipment.

Check the carrying capacity of the point of installation, particularly if installed on a platform.

The place selected for installation should be as free of vibrations as possible.

The main power switch must be freely accessible.

Ground the equipment against electrostatic charging.

4. Assembly Instructions

These installation instructions are intended for persons with skills in electrical and mechanical areas due to their training, experience and received instructions.

Personnel using these installation instructions must be made aware of the regulations for the prevention of accidents, the operating conditions and safety regulations and their implementation.

Ensure in each case that the personnel are sufficiently knowledgeable about the equipment.

The installation instructions provided in the corresponding operating instructions apply for all connected equipment.

Please observe all safety regulations for the operation of lifting gear.

All installation work must be carried out with the equipment disconnected from electrical power and compressed air supply.

For installation work taking place at heights of over approx. 6 feet, use only ladders or similar equipment and working platforms intended for this purpose. At greater heights, the proper equipment for protection against falling must be used.

Use only suitable lifting gear that is in proper working order and load suspension devices with sufficient carrying capacity. Do not stand or work under suspended loads!

Use only suitable workshop equipment.

Install the equipment so that all parts are easily accessible; this facilitates maintenance and repair work.

4.1. Installation

Use the following procedure to install the safety filter:

1. Place the safety filter in the conveying system directly before the vacuum pump.
2. Using 7/16”, Grade 5 or better hardware, secure the filter in place:

   Wall Mount. Use the mounting flange to secure the filter to the wall.

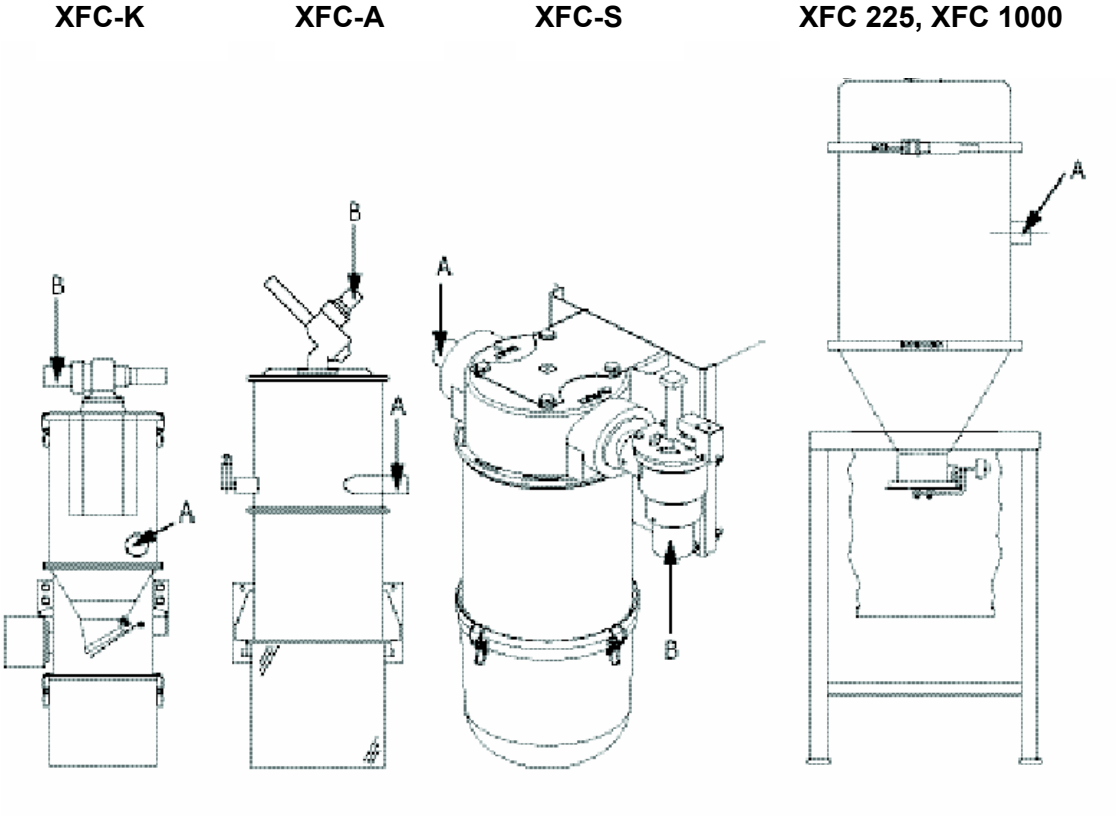
   Floor Mount. Bolt the floor stand to the ground.

   Pump Mount. Bolt the pump and stand to the ground. Pump-mount is only available with XPC pumps.

   Note: Floor leg kits are available to convert a standard wall mount configuration to a floor mount configuration. Part No. A0570013. Two (2) required per assembly.

   Make sure all screws are strong enough to hold the weight of the filter.
3. Connect the vacuum line to the filter chamber’s inlet tube (A). Use a hose clamp to secure the flexible hose.
4. Connect the vacuum pump line to the outlet tube (B). Use a hose clamp to secure the flexible hose.

Installation



4.2. Installing the Filter Shroud (XFC 225 and XFC 1000 only)

The cloth filter shroud is mounted to a ring on the underside of the filter chamber stand. It reduces housekeeping duties around the filter chamber by preventing dust from becoming airborne when dust and fines are discharged from the filter chamber. The dust container below the shroud is customer-supplied—the standard 24" (610 mm) clearance stand is designed for use with a 5-gallon (19 liter) pail, and the optional 38" (960 mm) clearance stand is designed for use with a 55-gallon (208 liter) drum.

Use the following procedure to install the filter shroud:

1. Insert the filter shroud support wire into the slotted hole in the middle of the cloth filter shroud. Use supplied hardware to secure.
2. Slip the filter shroud over the retaining ring located on the bottom side of the filter stand mounting plate. Secure it with the worm clamp provided.
3. Place the dust container below the filter chamber stand and insert the filter shroud.

Secure the filter shroud to the dust container:

For 5-gallon dust containers, the filter shroud will need to be trimmed and fastened to the top lip of the can with a band clamp.

For 55-gallon drums, do not trim the filter shroud. Secure the drawstring on the shroud around the drum, making sure the open end of the shroud hangs freely inside the drum.

4. Make sure the operation of the counterweighted flapper dump valve is not obstructed in any way by the filter shroud.

Do not obstruct the filter shroud in any way. Empty the dust container before the dust level obstructs the end of the filter shroud. Failure to follow these warnings may result in reduced filtering efficiency and contaminants entering the conveying system.

4.3. Electrical Connection

Be safety conscious! High or low voltage can cause serious or fatal injury. Installation must be performed by qualified personnel only. Always disconnect the power source before attempting installation or repair.

Refer to local electrical codes, the schematic, and connection diagrams supplied with this unit and the serial tag for wiring considerations. Run all wiring in conduit if codes require it. Label all wiring to make any future troubleshooting easier. Make all electrical connections tight.

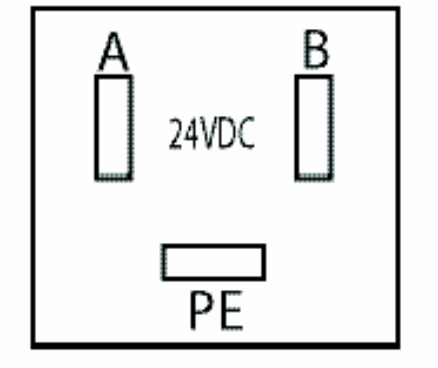
Before connection to the electricity supply, ensure that the supply voltage and the power frequency are in accordance with the data on the nameplate of the machine.

The main power disconnect must be freely accessible.

Ground the equipment against electrostatic charging.

4.3.1. XFC-K

Run electrical cable from the blowback valve to the conveying controller. Check control schematics for proper terminal connection points.



4.3.2. XFC-A

Run electrical cable from the blowback valve to the conveying controller. Check control schematics for proper terminal connection points.

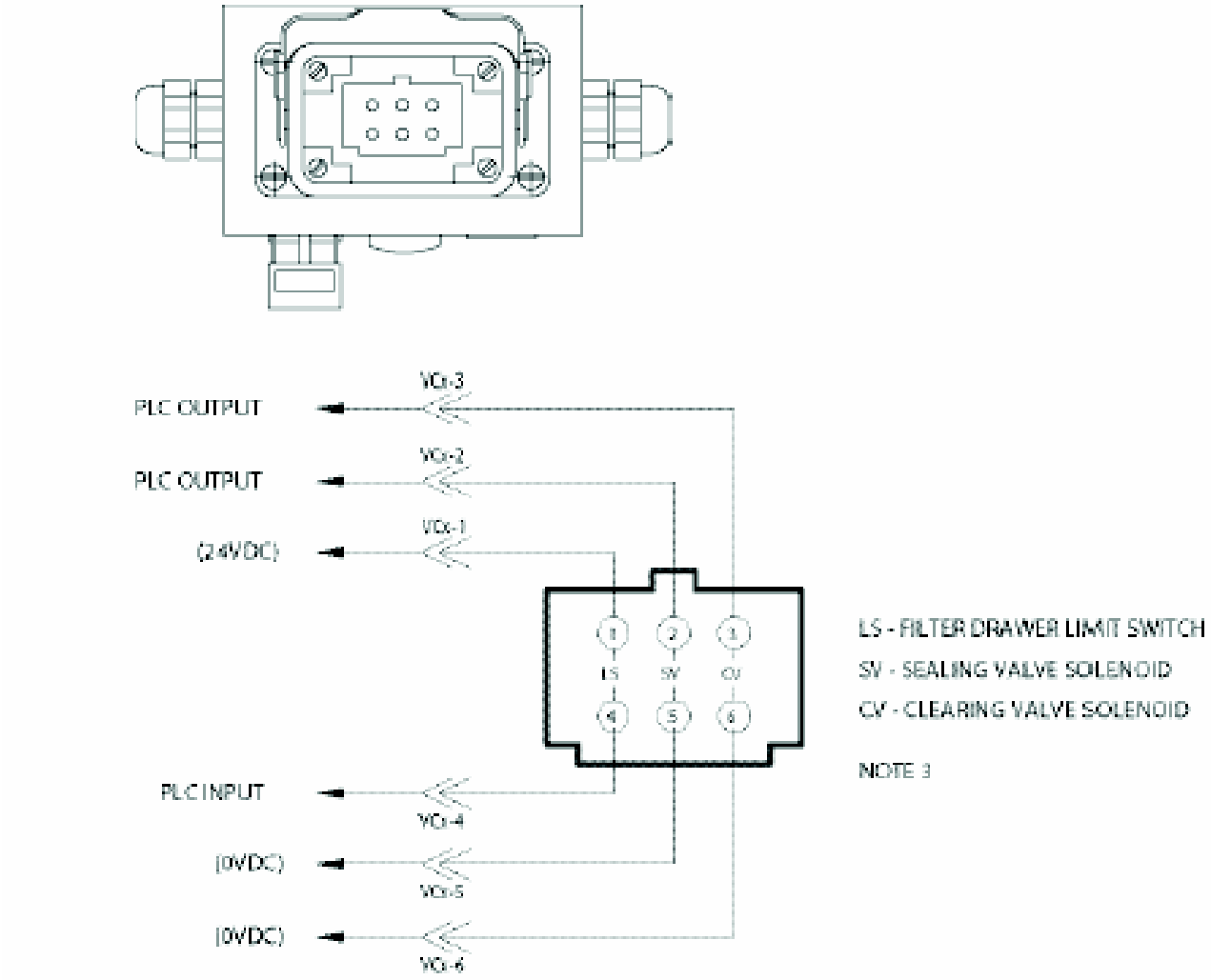


Figure 1: Filter Plug Connection Detail

4.3.3. XFC-S, XFC 225, XFC 1000

The XFC 225 and XFC 1000 safety filters feature compressed air blowback. The XFC-S safety filter is available with either compressed air blowback or implosion blowback. The blowback solenoids are controlled by either distributed or local I/O central conveying controllers. An integrated blowback controller is available for compressed air models. Electrical connections vary depending on the type of blowback and controller:

Local I/O Control. (Compressed air or implosion blowback) The solenoid is pre-wired. Attach the solenoid wire to the termination point in the central conveying controller. Refer to the manual and drawings that are provided with the conveying control for the location of the blowback solenoids.

Distributed I/O Control. (Compressed Air or implosion blowback) The solenoid is prewired with a patchcord that will plug into the ArmorBlock module. Refer to the installation drawing provided with the unit.

Integrated Control. (Compressed air blowback only) The solenoid is pre-wired. Choose a location for the blowback controller, and terminate the wires in the controller using the blowback control drawings that are included with the unit.

4.4. Compressed Air Blowback Connection

To provide proper filter element cleaning, the compressed air supply must be regulated to 80 PSI (5.5 bars). Low air pressure will cause poor filter element cleaning. Air consumption depends on the frequency and length of cleaning air pulses into the filter element.

Connect a minimum of 3/8” (9 mm) air line to the top of the solenoid valve air block. Compressed air must be clean, dry, and free of oil. A filter regulator and shut-off are recommended components of your in-plant air supply. In-line filters can handle small amounts of moisture; in-line desiccant filters or packed beds of granular absorbing polymer can remove oil mist and condensed oil.

You may need to install an accumulator in your air supply system to enhance blowback effectiveness if your system cannot consistently meet these requirements. Make sure you use full-sized 3/8” or larger diameter pipe or tubing when making the connection.

4.5. Implosion Blowback Connection

The clearing valve (implosion blowback valve) is located on the outlet of the vacuum filter. Connect the clearing valve to a 60-80 PSI (4.1-5.5 Bar) compressed air supply. Compressed air must be clean, dry and free of oil.

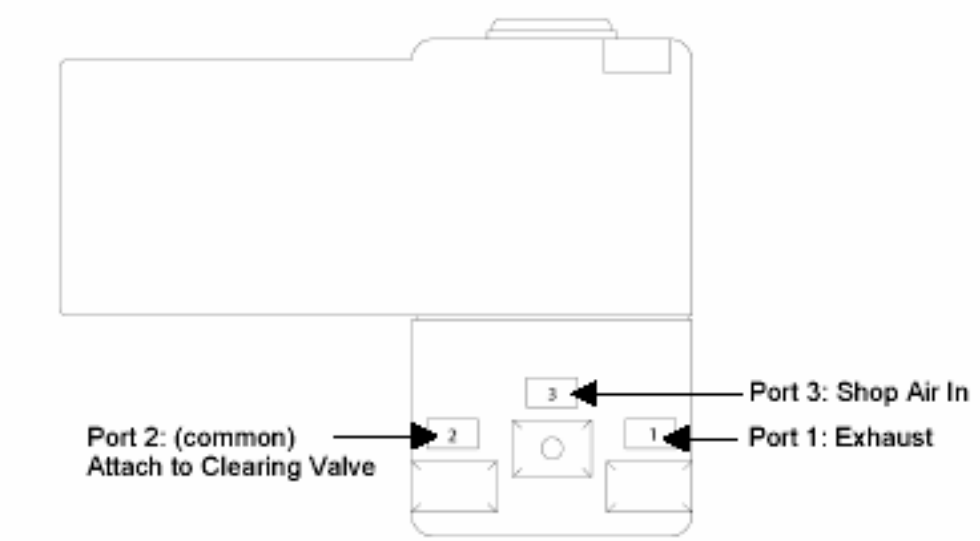
Run a 3/8" (9 mm) branch line to supply the vacuum hoppers in your system. Install a 3/8" (9 mm) x 1/8" (3 mm) tee valve in the up position near the filter chamber.

Connect shop compressed air to port number 3 on the clearing valve solenoid with 1/4" (approx. 6 mm) poly tubing. Connect port number 2 to the clearing valve. Port 1 is to be exhausted to the atmosphere. (See Figure 2).

The 3/8" (9 mm) branch supply line should include a shut-off valve for on/off control, an air filter/pressure regulator with a gauge for pressure control, and mini-lubricators located at each vacuum receiver. Install a quick-disconnect fitting or a shut-off valve in the compressed air piping leading to the vacuum receiver's clearing valve to speed receiver cover removal for cleanout or service.

Note: XFC-A style filters also include a sealing valve mounted to the inlet of the filter chamber. This valve is pre-piped to the main solenoid.

Figure 2: Clearing Valve Compressed Air Connections



5. Functional Description

This functional description is intended for all operating personnel of the equipment.

General knowledge of conveying systems is required to operate the equipment

Ensure in each case that the operating personnel are sufficiently knowledgeable about the equipment.

The safety filter is used to clean the vacuum air of the entire system and must be installed in every central conveying system to protect the vacuum pump from dust and debris. Primary system filtration occurs in the filter chamber, not in the vacuum receivers. The central filter chamber reduces maintenance of vacuum receiver filters on top of processing machines.

A filter cartridge inside the safety filter separates the vacuum air from the dust particles flowing along with it. A vortex created in the filter chamber separates carry-over from the air stream, and the filter element catches any dust and debris drawn into the upper chamber.

Depending on the style of filter, the filter cartridge is cleaned via implosion blowback or compressed air blowback. Dust and debris settles in the collection bin, which must be emptied periodically. No materials are conveyed during blowback. The blowback cycle is adjustable. (Refer to the Conveying Control Manual)

Compressed Air Blowback. Compressed air blowback is accomplished when short blasts of compressed air are blown through the filter.

Implosion Cleaning. Implosion cleaning is accomplished by using an clearing valve to create a vacuum in the collection area of the filter chamber. The clearing valve is actuated and allows an inrush of atmospheric air, which flows through the filter cartridge and cleans it from the inside out.

The XFC-SC Cyclonic Pre-Filter is also available. Consult factory.

6. Operation

Before operating the central safety filters, make sure all mechanical installations are complete.

Make sure all electrical and compressed air connections are complete and correct.

Make sure that no leaks are present in the filter chamber housing. Check clamps for proper adjustment.

6.1. Adjusting the Blowback Air Pulse Timing

The length of the air pulses and the time between air pulses require adjusting to match up with dusting characteristics of the material being conveyed. If more dusting occurs, then quicker and more frequent compressed air pulses are required to clean the filter element.

Central Conveying Control. To adjust the blowback air pulse timing, refer to the manual for the central conveying controller.

Compressed Air Blowback with Integrated Control. Locate the timer inside the control enclosure on the circuit board. With the unit operating, turn the potentiometer counterclockwise to speed up the timing (shortening the air pulse duration and time between air pulses); turn clockwise to slow down the timing (lengthening the air pulse duration and time between air pulses).

6.2. Adjusting the Number of Air Pulses

The number of air pulses during blowback can be adjusted as necessary to effectively clean the filter element.

Central Conveying Control. To adjust the number of air pulses, refer to the manual for the central conveying controller.

Compressed Air Blowback with Integrated Control. Locate the DIP switch inside the blowback control box. Set the DIP switch to the number of pulses you want from 1 to 16, using the DIP switch settings shown in Figure 3. The diagram is also shown on the blowback control box electrical schematic located in your customer service packet.

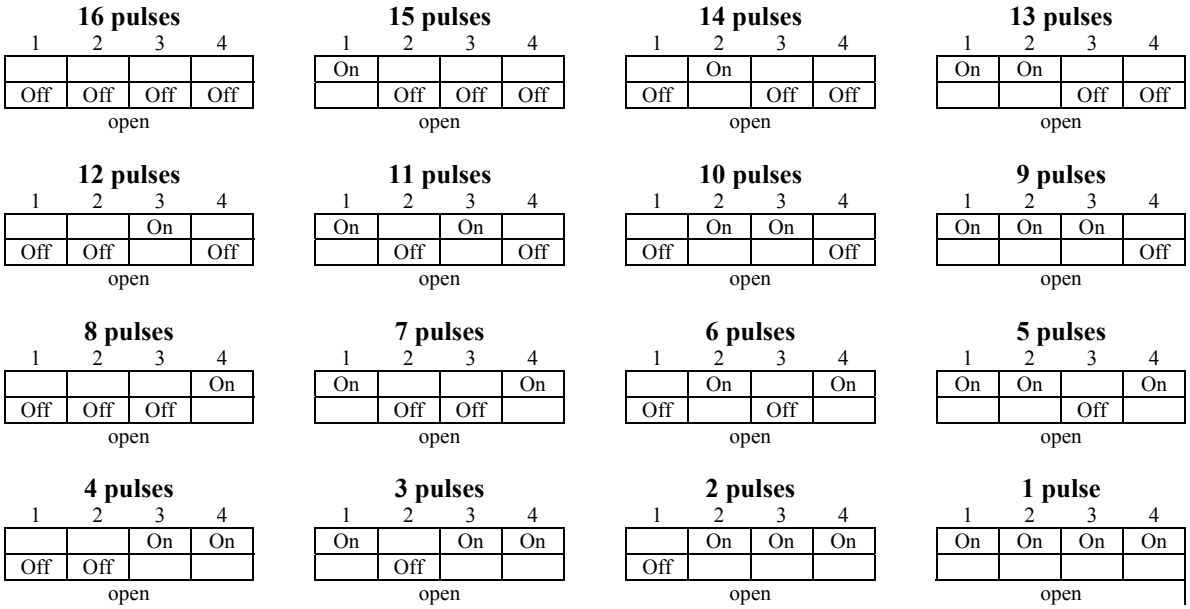


Figure 3: Blowback DIP Switch Settings

6.3. Starting Filter Chamber Operation

With all adjustments complete, turn on clean, dry, oil-free compressed air and regulate to 60-80 PSI (4.1-5.5 Bar). Turn the conveying system on. The controller automatically self-cleans the filter element.

If for any reason the power is turned off, wait at least 3 seconds to reset.

7. Maintenance

This chapter is intended for persons with skills in electrical and mechanical areas obtained from their training, experience and instructions.

Personnel using the instructions in this chapter must be aware of the regulations for the prevention of accidents, the operating conditions and safety regulations and their implementation.

Ensure in each case that the personnel are sufficiently knowledgeable about the equipment.

For maintenance work taking place at heights of over approx. 6 feet, use only ladders or similar equipment and working platforms intended for this purpose. At greater heights, the proper equipment for protection against falling must be worn.

Use only suitable lifting gear that is in proper working order and load suspension devices with sufficient carrying capacity. Do not stand or work under suspended loads!

Ensure that the electric motors/switch cabinets are sufficiently protected against moisture.

Use only suitable workshop equipment.

Before starting maintenance work, appoint a supervisor.

Inform the responsible personnel before maintenance work on the system is started.

Never operate the equipment when partially dismantled.

All maintenance and repair work not described in this chapter may only be carried out by the manufacturer's service personnel or authorized personnel (appointed by the manufacturer).

Disconnect the equipment from main power supply before starting maintenance procedures to ensure that it cannot be switched on unintentionally.

Depressurize all system sections of the equipment before carrying out any repair work.

Please observe the maintenance intervals.

Before starting maintenance work, clean the equipment of oil, fuel or lubricants.

Ensure that materials and incidentals required for operation as well as spare parts are disposed of properly and in an environmentally sound manner.

Use only original Sterling spare parts.

Keep record of all maintenance and repair procedures.

7.1 Maintenance Intervals

Daily:	Check that warning labels on the equipment are clear and readable.
Weekly:	Check the waste level in the collection bin, and clean if necessary.
	Clean the filter cartridges (depending on accumulation of dust). Check for signs of wear.
Every 6 months:	Replace the filter cartridges (depending on accumulation of dust and wear).
	Check all electrical and mechanical connections for a secure fit.
	Check gaskets on the inlet tube, lid, and collection bin.
Annually:	Replace gaskets.

The given maintenance intervals are average values.

Check whether in your individual case the maintenance intervals must be shortened.

High dust loading systems may require more frequent replacement/service intervals.

7.2 Servicing the Filter

Stop conveying before servicing the filter. Turn off the conveying system at the main power switch.

Depressurize all sections of the equipment

7.3. Cleaning the Collection Bin (All Models Except XFC 225 and XFC 1000)

Use the following procedure to clean the collection bin:

1. Open the toggle fasteners on the bottom of the filter
2. Remove the collection bin.
3. Empty contents of the collection bin and completely clean it.
4. **XFC-A/XFC-K Only:** Adjust the counterbalance so that the dump valve remains open from 3/16" to 1/4" (4 mm to 6 mm) when not under vacuum.
5. Wipe down the gasket and collection bin mating surfaces to ensure a good seal. A good vacuum seal is important for proper operation. Replace gasket if necessary.
6. Check the filter element for excessive wear or damage. If the filter element is damaged, replace it immediately. (See Section 7.5. Cleaning/replacing the filter cartridge).
7. Return the collection bin to the bottom of the filter.
8. Close the toggle fasteners.

7.4. Cleaning the Filter Shroud (XFC 225 and XFC 1000 Only)

Use the following procedure to clean the filter shroud:

1. Remove the dust container from the filter shroud by unclamping the band clamp or loosening the drawstring. (Filters that have been trimmed for 5-gallon pails do not have a drawstring).
2. Empty the contents of the collection bin and completely clean it.
3. Remove the worm clamp from the bottom of the filter stand mounting plate, and remove the filter shroud.
4. Clean the filter shroud by blowing compressed air through it.
5. Slip the filter shroud over the retaining ring located on the bottom side of the filter stand mounting plate. Secure it with the worm clamp provided.
6. Place the dust container below the filter chamber stand and insert the filter shroud.
7. Fasten the filter shroud to the dust container using either a band clamp or the drawstring. (Filters that have been trimmed for 5-gallon pails do not have a drawstring).

7.5. Cleaning/Replacing the Filter Cartridge

7.5.1. XFC-A

Use the following procedure to clean or replace the filter cartridge:

1. Open the clamp on the lid of the filter.
2. Remove the filter lid.
3. Remove the filter cartridge.
4. Blow compressed air through the filter cartridge from the inside to the outside of the filter. Replace the filter cartridge if it shows signs of wear.
5. Wipe down the gasket and lid mating surfaces to ensure a good seal. A good vacuum seal is important for proper operation. Replace gasket if necessary.
6. Re-install the filter cartridge. Make sure the filter cartridge is properly seated in the housing.
7. Place the hopper lid on the filter.
8. Close the clamp on the lid of the filter.

Spare Parts

Filter Cartridge: CT86348

7.5.2. XFC-K

Use the following procedure to clean or replace the filter cartridge:

1. Open the toggle fasteners on the lid of the filter.
2. Remove the filter lid and cartridge.
3. Remove the locking pin and lock nut to separate the cartridge from the lid.
4. Blow compressed air through the filter cartridge from the inside to the outside of the filter. Replace the filter cartridge if it shows signs of wear.
5. Wipe down the gasket and lid mating surfaces to ensure a good seal. A good vacuum seal is important for proper operation. Replace gasket if necessary.
6. Re-install the filter cartridge. Make sure the filter cartridge is properly seated in the housing.
7. Use a new lock nut tightened to 15 foot pounds (20 Nm), and fasten the filter to the lid.
8. Place the hopper lid on the filter.
9. Close the toggle fasteners.

Spare Parts

Filter Cartridge: ID85612
Lock Nut: ID85486

7.5.3. XFC-S

Use the following procedure to clean or replace the filter cartridge:

1. Unlatch the four (4) clamps that hold the collection bin to the filter assembly.
2. Discard contents of the collection bin if needed.
3. Loosen and remove the wing bolt that holds the filter cartridge in place.
4. Remove the filter cartridge from the assembly.
5. Use compressed air to clean the filter cartridge. Blow from the inside to the outside of the filter cartridge. Make sure that the compressed air pressure is less than 100 PSI (6.9 Bar) to keep from damaging the filter. Replace the filter cartridge if it shows signs of wear.
6. Wipe down the gaskets on the filter cartridge and on the filter assembly where the collection bin will meet.
7. Re-install the filter cartridge. Make sure the filter cartridge is properly seated in the housing, and bolt it into the assembly.
8. Replace the collection bin and re-latch the clamps that hold it into place.

Spare Parts

Filter cartridge: ID A0571262

7.5.4. XFC 225 and XFC 1000

Use the following procedure to clean or replace the filter cartridge:

1. Unlatch the clamp that secures the cover assembly.
2. Lift off the cover.
3. Unscrew the retaining cover, and remove the filter cartridge.
4. Use compressed air to clean the filter cartridge. Blow from the inside to the outside of the filter cartridge. Make sure that the compressed air pressure is less than 100 PSI (6.9 Bar) to keep from damaging the filter. Replace the filter cartridge if it shows signs of wear.
5. Wipe down the gasket and filter retainer cover mating surfaces to ensure a good seal.
6. Re-install the filter cartridge. Make sure the filter cartridge is properly seated in the housing.
7. Re-install the retaining cover. A snug fit is required for a proper fit. Do not over tighten the retaining cover.
8. Place the cover on top of the filter assembly
9. Latch the clamp that secures the cover assembly.

Spare Parts

XFC 225 Filter Cartridge: A0547008
XFC 1000 Filter Cartridge: A0547007

7.6. Replacing the Gaskets (XFC-K/XFC-A only)

The XFC-K and XFC-A safety filters include several gaskets that should be checked periodically and replaced as needed.

7.6.1. Replacing the Internal Check Valve Gasket (XFC-K/XFC-A only)

The internal check valve is located on the inner opening of the inlet tube. The valve prevents dust and debris from flowing out of the filter chamber back into the vacuum line. Use the following procedure to replace the internal check valve gasket:

1. Open the toggle fasteners on the lid of the filter chamber.
2. Remove the lid and the filter cartridge from the filter chamber.
3. Remove the old gasket off of the inlet nozzle.
4. Install the new gasket.
5. Wipe down the gasket and lid mating surfaces to ensure a good seal. A good vacuum seal is important for proper operation.
6. Return the filter cartridge and lid to their original positions.
7. Close the toggle fasteners on the lid.

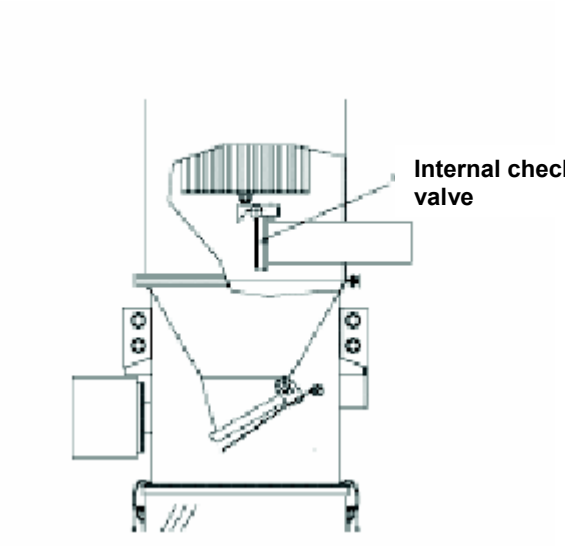


Figure 4: Internal Check Valve

Spare Parts

Material Check Valve Gasket:	**1.5”/2” (40/50mm):**	**ID 85610**
	2.5” (65mm):	**ID 17989**

7.6.2. Replacing the Dump Valve Gasket (XFC-K/XFC-A only)

The dump valve is located on the bottom of the filter chamber, just above the collection bin. This valve prevents dust and debris from flowing out of the collection bin back into the filter chamber. Use the following procedure to replace the dump valve gasket:

1. Open the toggle fasteners on the collection bin.
2. Remove the collection bin.
3. Remove the old gasket from the dump valve.
4. Install the new gasket.
5. Adjust the counterbalance so that the dump valve remains open from 3/16" to 1/4" (4 mm to 6 mm) when not under vacuum.
6. Wipe down the gasket and collection bin mating surfaces to ensure a good seal. A good vacuum seal is important for proper operation.
7. Return the collection bin to the bottom of the filter.
8. Close the toggle fasteners on the collection bin.

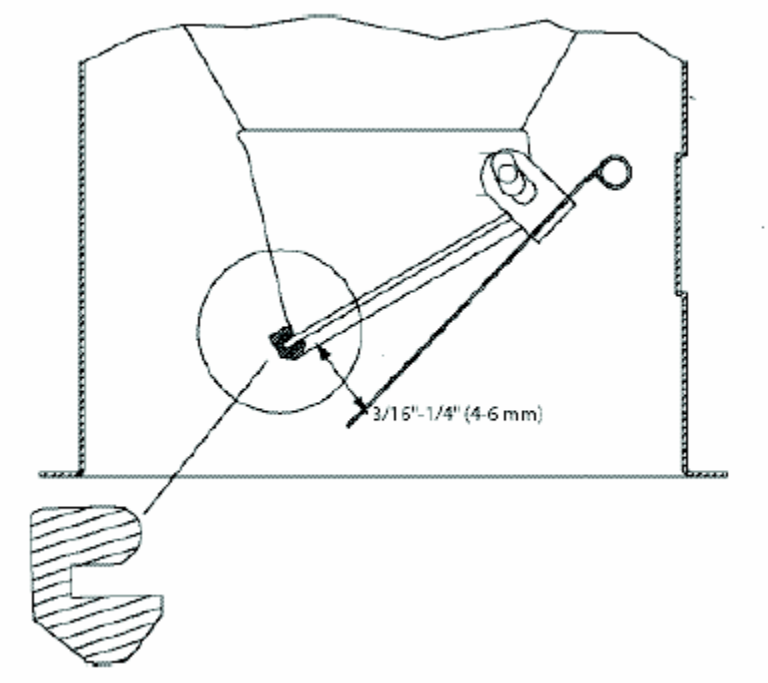


Figure 5: Dump Valve

Dump Valve Gasket:	**XFC-K:**	**ID 23098**
	XFC-A:	**ID 99880**

7.7. Replacing/Cleaning the Filter Cartridge of the Collection Bin Vent (XFC-K only)

XFC-K filter chambers feature an additional filter cartridge near the collection bin. The filter cartridge can be replaced or cleaned during operation, but because of dust accumulation, we recommend stopping conveying before maintenance. Use the following procedure to replace or clean the collection bin filter cartridge:

1. Slide the filter cartridge off of the collection bin vent port.
2. Blow compressed air through the clogged filter cartridge from the inside out or replace the filter cartridge.
3. Install the new/cleaned filter cartridge

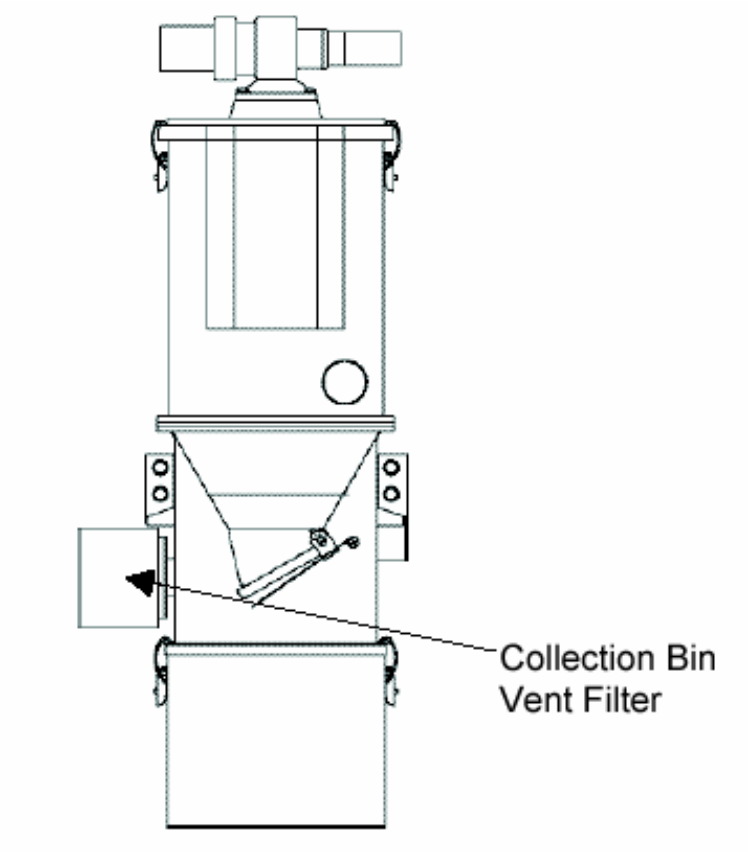


Figure 6: Outlet Container Filter Cartridge

Filter cartridge: XFC-K only: ID 98171

7.8. Dismantling and Disposal

Only skilled personnel qualified for this work may dismantle the individual product modules.

Parts that are under mechanical stress should be dissembled with utmost care to avoid the energy trapped in these parts from unleashing and causing injury.

7.8.1 General

To dispose of the products, you should take the following action:

- Remove and destroy the nameplate with the CE sign.
- Completely disassemble the product and dispose of the various components or recycle them.

7.8.2 Disposal Instructions

- All components must be depressurized prior to disassembly.
- Oil, grease and other fluids have to be disposed of separately in accordance with local regulations.
- Bright steel parts are to be treated as steel scrap.
- Depending on local disposal regulations, painted steel parts may have to be shot blasted before they can be disposed of as steel scrap. Shot blast shall be disposed of separately.
- Galvanized steel parts must be disposed of separately, according to local regulations.
- Stainless steel parts are to be disposed of as stainless steel scrap.
- Aluminum parts, such as manhole components, come under aluminum scrap.
- Sealing materials have to be separately disposed of.
- Electronic components must be disposed of separately, according to local regulations.

8. Technical Data

These instructions apply to all persons within who may operate the equipment.

These operating instructions are to be used by all persons assigned activities connected with the equipment.

Standard Features:
Voltage: 24V DC (also available in 115V AC)
Compressed air supply, 60-80 PSI (4.1-5.5 Bar)
XPC pump mount, Wall mount or Floor mount
See-through plexiglass collection bin with quick disconnects

Line Sizes Available

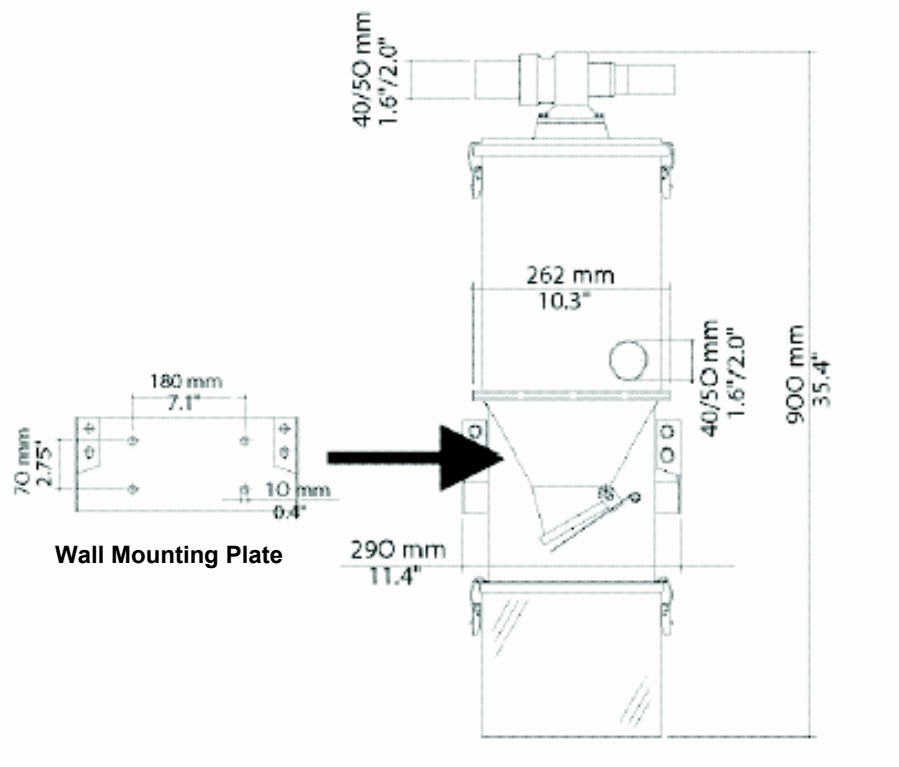
	XFC-K	XFC-A	XFC-S	XFC 225	XFC 1000
1.5	X	X	X		
2.0	X	X	X	X	
2.5		X	X	X	
3.0			X	X	
3.5 (2 Sch. 5)			X	X	X
4.0			X		X
4.5 (4 Sch. 10)					X
5.0 (5 Sch. 10)					X
6.0 (6 Sch. 10)					X

Specifications

	XFC-K	XFC-A	XFC-S	XFC 225	XFC 1000
Filter surface, sq. ft (m^2)	3.2 (0.3)	17.2 (1.6)	50 (4.64)	35 (2.26)	55 (3.55)
Filter cleaning method	Compressed air blowback	Implosion blowback	Compressed air or implosion blowback	Compressed air	Compressed air
Approx. weight, lbs. (kg)	31 (14)	117 (53)	70 (26)	160 (73)	200 (91)

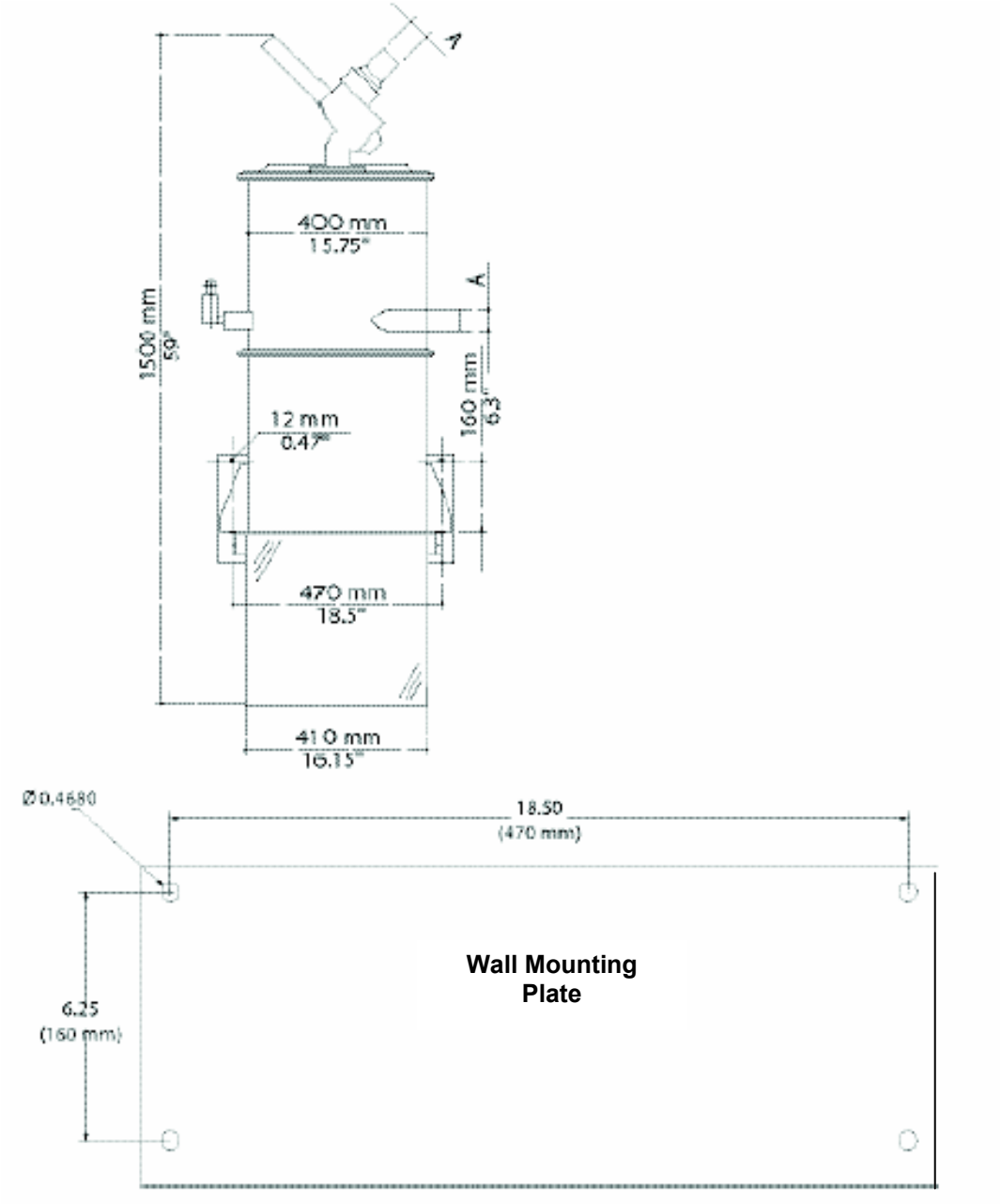
Dimension Sheets

XFC-K

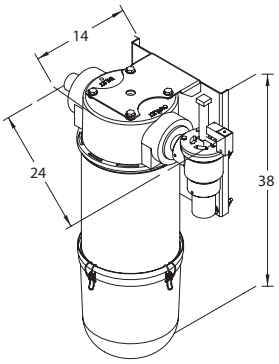


Wall Mounting Plate

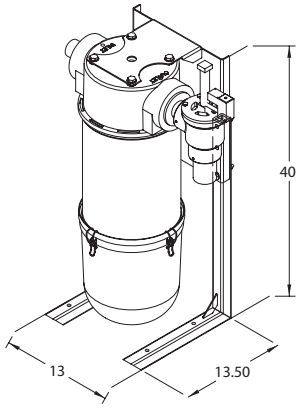
XFC-A


400 mm
15.75"
1500 mm
59"
A
160 mm
6.3"
12 mm
0.47"
470 mm
18.5"
410 mm
16.15"
Ø0.4680
18.50
(470 mm)
6.25
(160 mm)
Wall Mounting
Plate

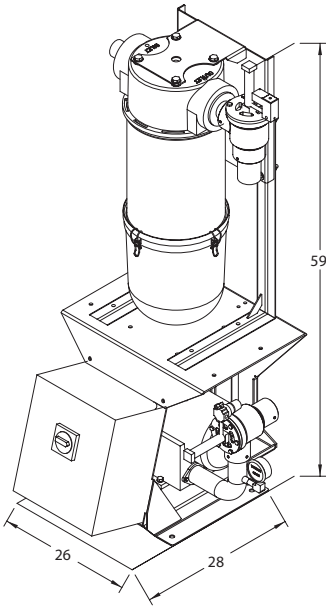
Wall mount

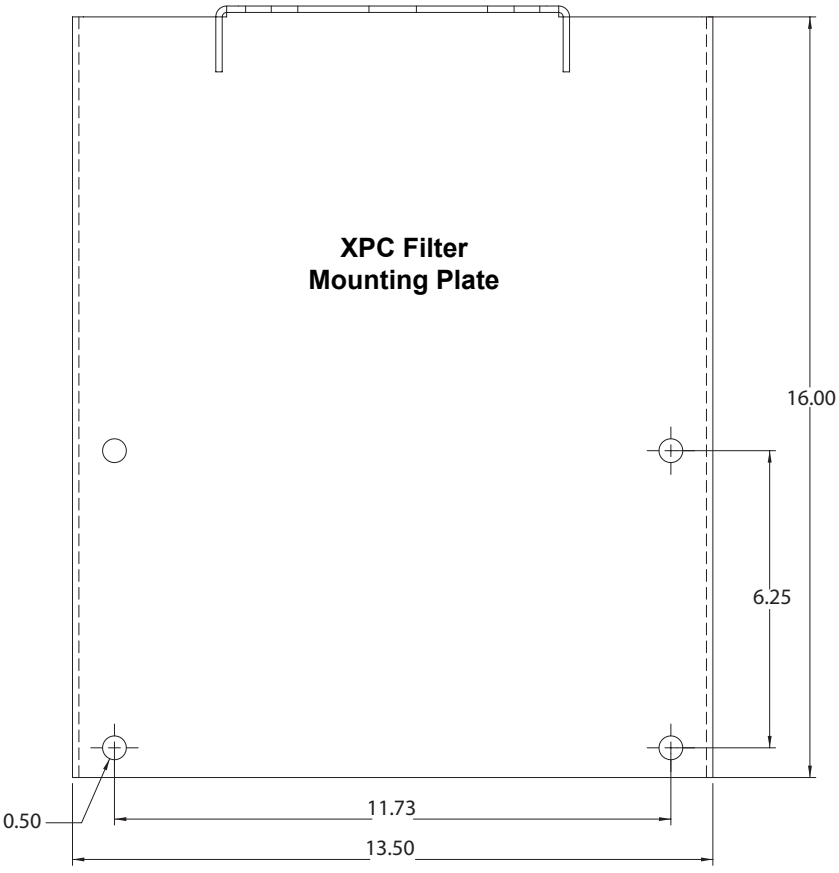


Floor mount

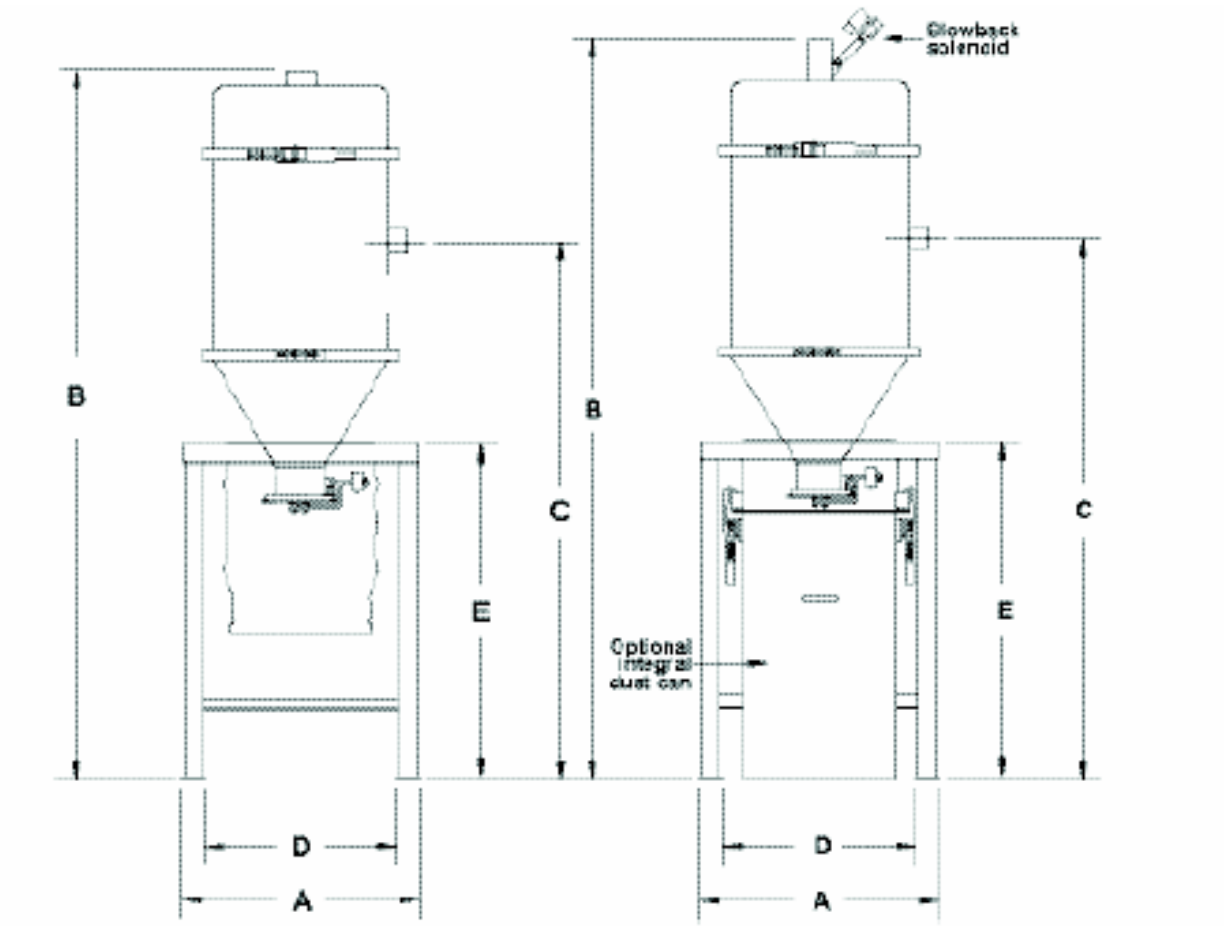


SPC Pump Mount





XFC 225 and XFC 1000



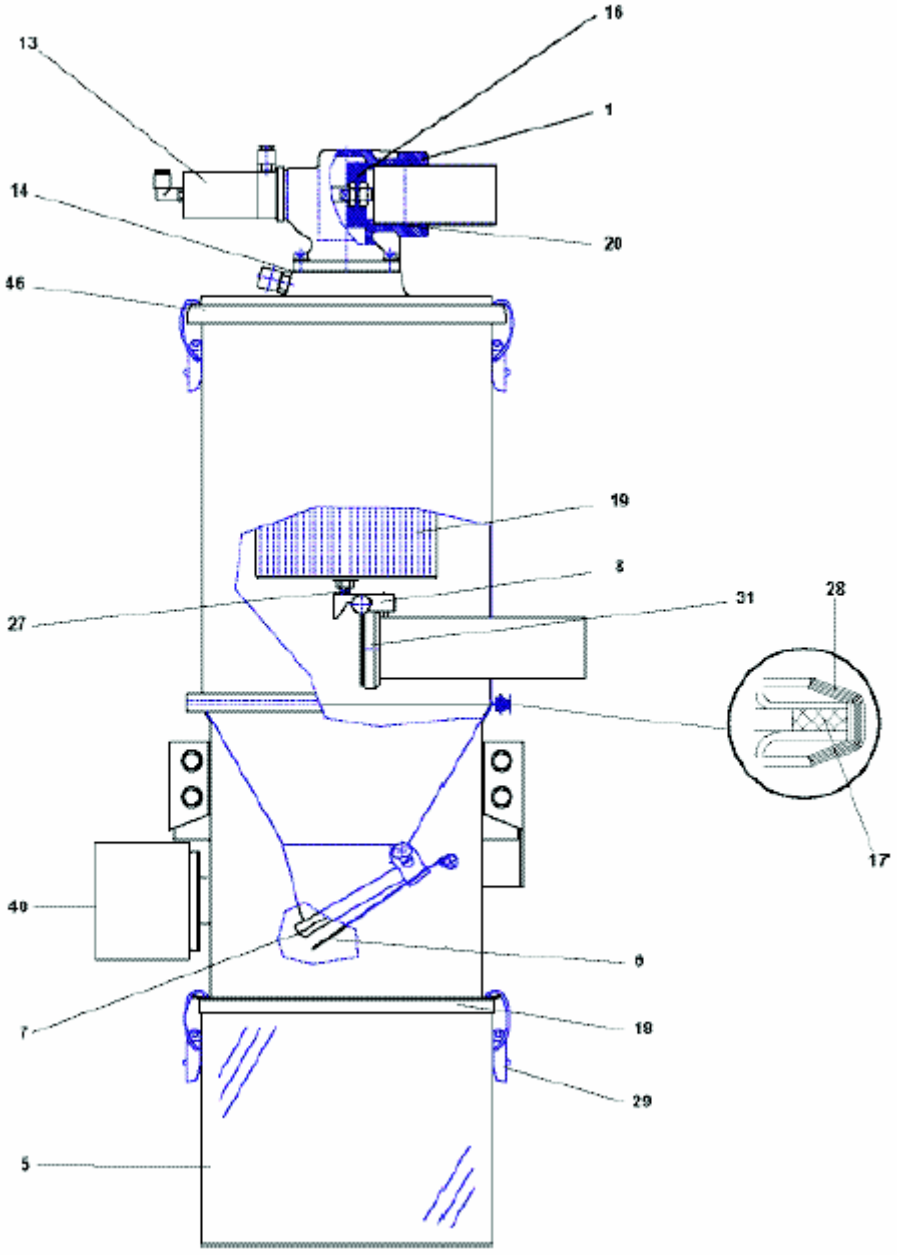
Type of Stand	A, in. (cm)	B, in. (cm)	C, in. (cm)	D, in. (cm)	E, in. (cm)
29" stand	20 (51)	62-7/8 (160)	45.25 (115)	17.5 (43)	29 (77)
45" stand	28 (71)	78-7/8 (200)	60-7/8 (155)	25.5 (65)	45 (114)

9. Spare Parts Lists

This spare parts list is intended to be used only by trained personnel.

Other persons are not permitted to modify or repair the equipment.

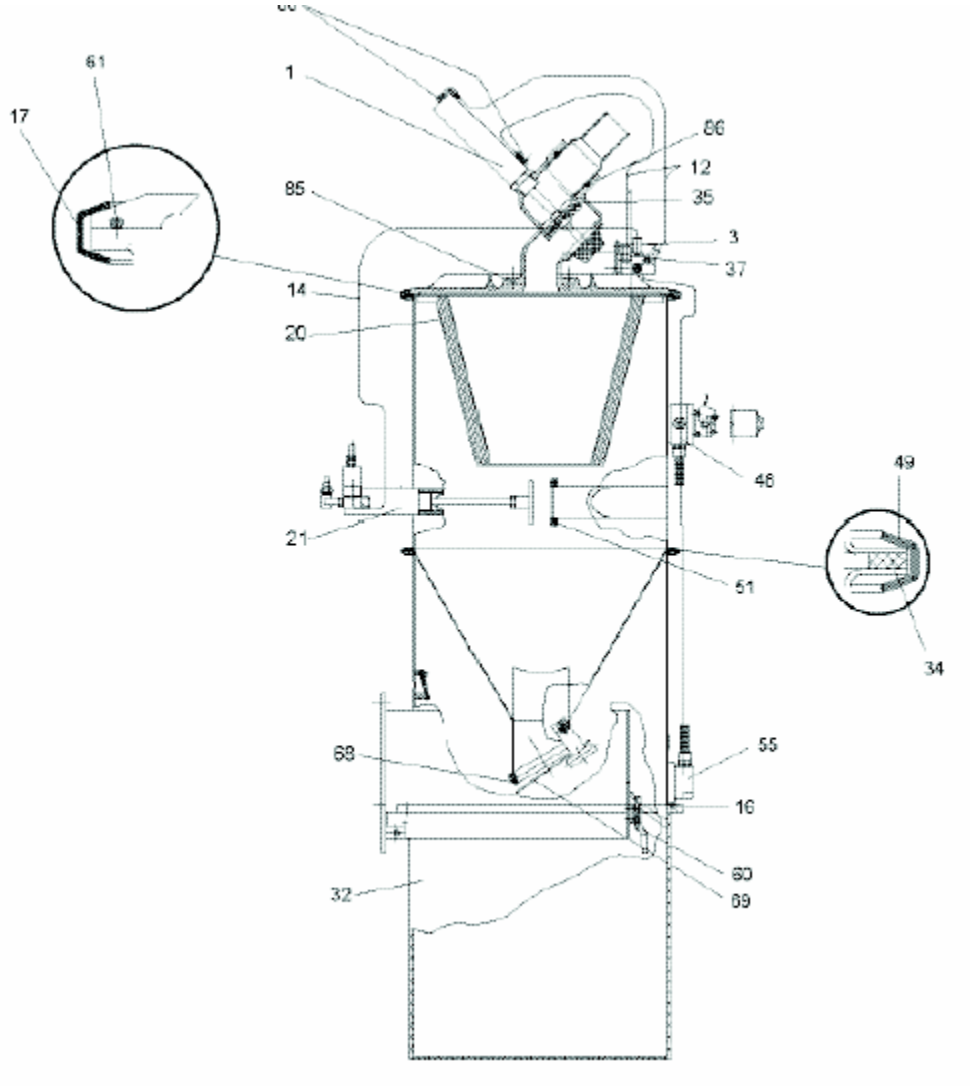
9.1 Parts Breakdown, XFC-K



9.2 Parts List, XFC-K

Pos.	Part #	Name
1	CT28622	Valve housing
5	CT28624	Collecting bin
6	CT23093	Outlet flap with magnet
7	CT23098	Sealing ring
8	CT13428	Nonreturn valve
13	CT28623	Cylinder
14	CT23092	Sealing
16	CT09646	Sealing ring
17	CT28420	Sealing ring
18	CT28619	Sealing ring
19	CT85612	Filter cartridge
20	CT86383	Sealing
27	CT85486	Lock nut
28	CT85533	Profile tension ring
29	CT85497	Toggle-type fastener
31	CT85610	Sealing ring
40	CT98171	Filter cartridge
46	CT29297	Sealing ring

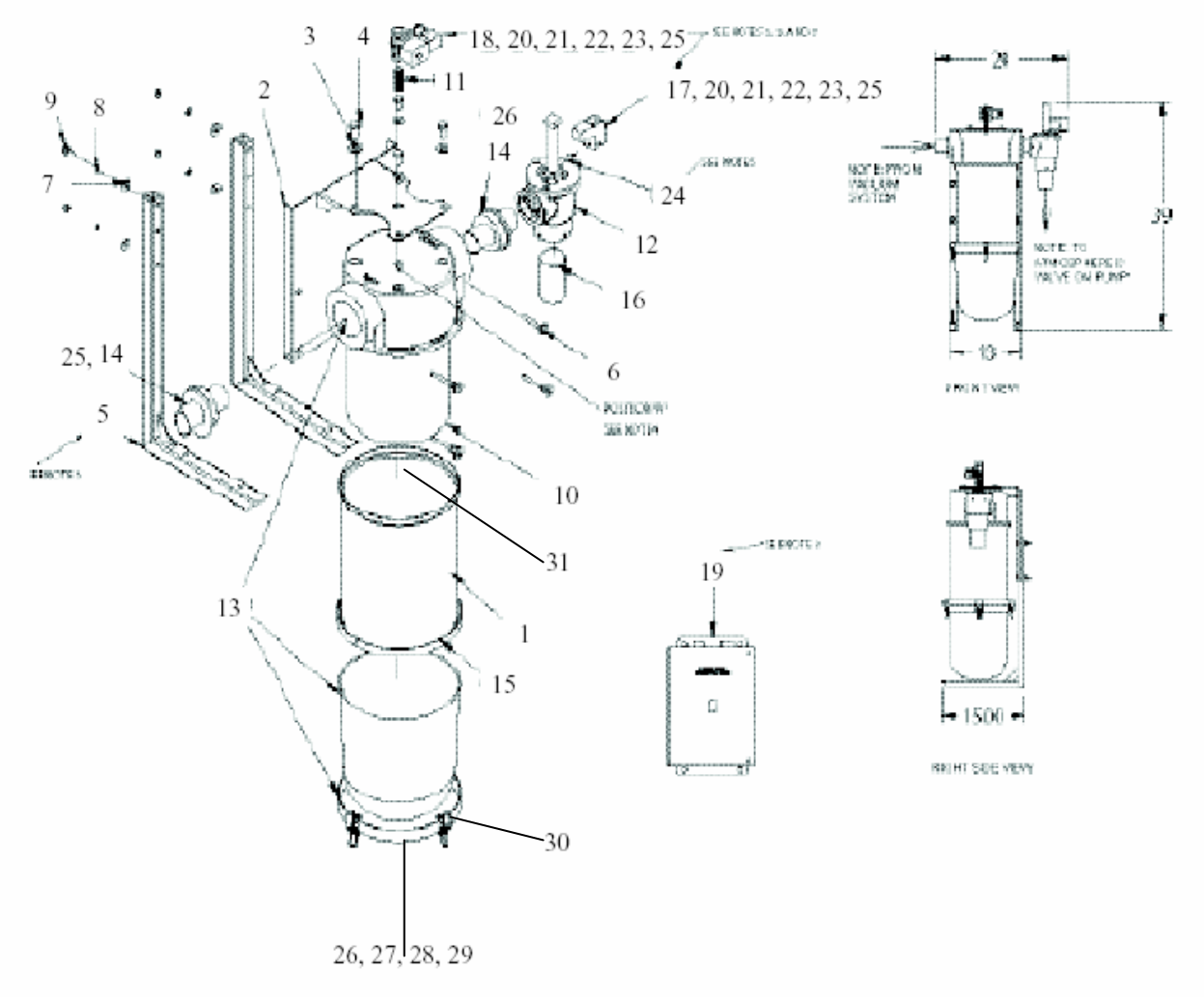
9.3. Parts Breakdown, XFC-A



9.4. Parts List, XFC-A

Pos.	Part #	Name
1	CT93551	Compressed air cylinder
3	CT96372	Solenoid valve
12	CT98177	PVC fabric hose (0.7 m) (27.6”)
14	CT98706	PVC fabric hose (1.0 m)(39.4”)
16	CT95417	Sealing (1.35m) (53.15”)
17	CT93569	Profile tension ring
20	CT86348	Filter cartridge, conical 1.6m2 (63”)
21	CT27086	Compressed air cylinder
32	CT09042	Container
34	CT99839	Sealing (1.4 m) (55.1”)
35	CT15110	Sealing
37	CT09046	Filter
48	CT17011	Connection housing
49	CT99876	Profile tension ring
51	CT85610	Sealing XFC-A 40/65
	CT17989	Sealing XFC-A 65
55	CT93570	Safety switch
60	CT96480	Toggle-type fastener
61	CT95881	Sealing (1.35 m) (53.15”)
68	CT99880	Sealing (0.6 m) (23.6”)
69	CT00159	Outlet flap
80	CT86640	Valve
85	CT13020	Sealing
86	CT88141	Valve

9.5. Parts Breakdown, XFC-S



9.6. Parts List, XFC-S

Implosion blowback and compressed air blowback assemblies shown together. Actual configuration depends on blowback method.

Item	Qty.	Part #	Description
1	1	A0570026	Extension cylinder
2	1	A0570051	Brkt, fltr, mtg, XFC-S
3	4	A0069232	Washer flat ½"
4	4	A0069236	SCR, HHC, PS, ½-13 X 1.00 LG
5	2	A0570013	STND, FLTR, BASE, WEIDMNT
6	4	A0069230	SCR, HHC, PLD, 3/8-16 x 2-1/2 FT
7	8	A0069243	Wash, Flat, wrought, PLD, 3/8
8	4	A0069203	Wash, Split, Lock, 3/8
9	4	W00001491	Nut, Hex, PLD, 3/8-16
10	1	A0571262	Fltr, Elem, 50 Sq. ft. Area
11	1	A0535382	NIP, BR, 0.50 NPT x 2.00 LG
16	1	A0571250	Solenoid 3-way implosion blowback 110V AC
16	1	A0571252	Solenoid 3-way implosion blowback 24V DC
17	1	732.00012.02	Solenoid 2-way Compressed air 110V AC
17	1	A0566361	Solenoid 2-way Compressed air 24V DC
26	1	A0069229	BOLT, 3/8-16 x 2.00 LG
12	1	A0571351	Bowl, Fltr, Dust, Cltn, XFC-S, SC
14	1	A0571316	Gskt, Nat, Rbr, 5/16th x ¼ wide
11	1	W00000146	O-ring, 1.5", Atmospheric, Valve
11	1	W00000145	O-ring, 2.0", Atmospheric, Valve
11	1	W00001045	O-ring, 2.5", Atmospheric, Valve
11	1	W00001738	O-ring, 3.0", Atmospheric, Valve
11	1	W00001959	Plunger, 1.0-1.5", Atmospheric, Valve
11	1	W00013524	Plunger, 2.0", Atmospheric, Valve
11	1	W00001958	Plunger,2.5-3.0", Atmospheric, Valve
11	1	W00017688	Cylinder, Atmospheric, Valve
24	1	A0565399	Solenoid, Din, Connector
25	1	A0556546	Orng, Silc, 3" npt, In/out, Adapter
26	1	872.00199.00	Metal bucket with clamps
27	1	872.00200.00	Clear poly bucket with clamps
28	1	852.00001.00	Clear poly bucket shell
29	1	872.00201.00	Band of clamps
30	1	010.00014.00	Wire clamp for bucket
31	1	001.00008.00	Thumb screw for filter

9.7. XFC 225

Qty.	Part No.	Description
1	A0547008	Filter, cart, wire mesh, polyester media
1	A0539933	Gasket, fltr, element, MVH/XFC
2	A0555790	Gasket, U-channel, neoprene
8 ft.	A0540241	Gasket, U-channel, FDA
8 ft.	A0540242	Gasket, U-channel, high-temperature
1	W00012559	Gasket, throat, neoprene, 4”
1	W00016136	Gasket, throat, FDA, 4”
1	W00018024	Gasket, throat, high-temperature, 4”
1	W00001868	Shroud, filter, 50#, hopper
1	W00533542	Shroud, drawstring, 16” ID x 13” long

9.8. XFC 1000

Qty.	Part No.	Description
1	A0547007	Filter, cart, wire mesh, polyester media
1	A0561801	Gasket, fltr, element, MVH/XFC
2	A0555790	Gasket, U-channel, neoprene
8 ft.	A0540240	Gasket, U-channel, neoprene
1	W00016928	Gasket, throat, neoprene, 6”
1	W00001868	Shroud, filter, 50#, hopper
1	W00533542	Shroud, drawstring, 16” ID x 13” long

10. Troubleshooting

Problem	Possible Cause	Solution
High-vacuum alarm	Filter element dirty.	Clean or replace filter
Filter element is becoming obstructed too frequently by fines and dust	Dump delay time set to zero, or insufficient dump delay time.	Set dump delay time to the time it takes the largest vacuum hopper in the system to dump.
	Dusty material.	Consult sales representative.
	Dusty material—optional compressed air filter cleaning may be needed on filter chamber.	Consult sales representative
Vacuum conveying rate is declining due to a vacuum loss in the system.	Pump package blower problem. Use a cfm/cfh monitoring device to ensure that blower cfm/cfh is to the manufacturer's specifications.	Filter chamber problem. The vacuum at the filter chamber should be the same as the blower generates. If the vacuum at the filter chamber is adequate, the problem is down line.
		Dirty filter. Clean or replace filter:
		Loose clamps, gaskets, or couplers. Tighten or replace.
		Filter chamber discharge flapper not sealing under vacuum. Check for proper operation; clean or repair as needed.
		Check for faulty compressed air blowback solenoid. Check for voltage signal during cleaning cycle, proper solenoid operation, incorrect wiring, proper compressed air connection, and for worn plunger in valve.
Material is sucked from the filter chamber and through the blower.	Filters in the filter chamber are dislodged, worn, or not seated properly on the gasket.	Replace or repair immediately. If the exhaust silencer has material in it, replace it to prevent fire hazard
	The material conveyed is not what the system was designed to convey. Very dusty materials have different conveying needs.	Consult the sales representative for advice on hardware requirements.

11. Technical Assistance

11.1. Parts Department

Call toll-free 7am–5pm CST [800] 423-3183 or call [630] 595-1060, Fax [630] 475-7005

The ACS Customer Service Group will provide your company with genuine OEM quality parts manufactured to engineering design specifications, which will maximize your equipment's performance and efficiency. To assist in expediting your phone or fax order, please have the model and serial number of your unit when you contact us. A customer replacement parts list is included in this manual for your convenience. ACS welcomes inquiries on all your parts needs and is dedicated to providing excellent customer service.

11.2. Service Department

Call toll-free 8am–5pm CST [800] 233-4819 or call [630] 595-1060

Emergencies after 5pm CST, call [847] 439-5655

We have a qualified service department ready to help. Service contracts are available for most products.

11.3. Sales Department

Call [630] 595-1060 Monday–Friday, 8am–5pm CST

Our products are sold by a world-wide network of independent sales representatives. Contact our Sales Department for the name of the sales representative nearest you.

11.4. Contract Department

Call [630] 595-1060 Monday–Friday, 8am–5pm CST

Let us install your system. The Contract Department offers any or all of these services: project planning; system packages including drawings; equipment, labor, and construction materials; and union or non-union installations.